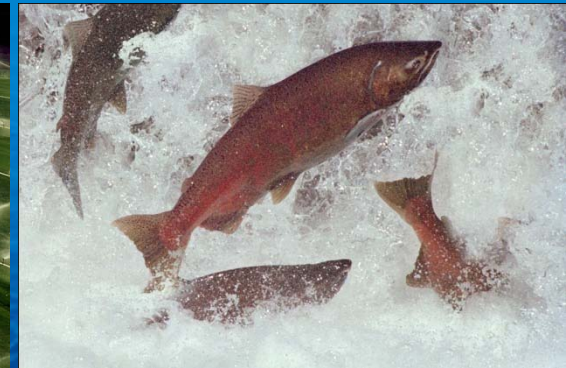




# **Update 2013 Integrated Water Management Finance Planning Framework**

## ***Session 2 – History of Resource Management Funding***



***Prepared for: California Water Plan Plenary***

***September 12, 2012***

# Update 2013 Finance Planning Framework

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This is a strategic long term planning framework and is NOT intended to change or supplant:

- (1) Ongoing State grant and loan activities
- (2) Specific State programs or projects that are currently being planned or implemented
- (3) Local or regional governance and finance



# What is Integrated Water Management (IWM)?

## *Operational Explanation for Plenary*

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### **Multiple Dimensions:**

Topics: Flood management, water supply and quality, environmental assets and systems, ...

Institutional: Alignment of all State agencies and policies across IWM topics

Planning: Transparent and inclusive

Principles: Sustainability and multi-objective solutions

# Update 2013 Finance Planning Framework

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## **Water Plan Plenary - September 12 & 13:**

- Framework Background and Scope of IWM
- History of Resource Management Funding
- Principles for Investment Priorities and Apportioning Costs
- Cost of Forgone Future Investment
- Future IWM Role of State Government & Criteria for Crafting Recommendations

# Update 2013 Finance Planning Framework Framework Background and Scope of IWM

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## Topics for this session:

- Generalized characterization of Long-Term Historical Spending (1850 - current)
- Federal, State and Local IWM Spending Summaries
- Critical Planning Contexts
- Derived and Contextual Premises



# Update 2013 Finance Planning Framework History of Resource Management Funding

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## **Purpose:**

- **Develop common understanding of how current conditions came to be**
- **Synthesize data for context and background required to make informed decisions**

# Update 2013 Finance Planning Framework Overview

## Update 2013 Finance Planning Framework (Integrated into Volume 1) August 24, 2012

This document represents the general approach for building the Update 2013 financing planning framework into Volume 1. Water Plan Plenary finance sessions are indicated in red. The text below each heading is instructional text, to describe the purpose and general idea of each section. It will not necessarily appear in the chapter.

The last row provides an indication of probability that each respective section of the finance planning framework will be completed for Update 2013. Sections that are not completed for Update 2013 will be recommended for advancement or completion for Update 2018. The definition of "completed" involves three primary components: (1) a method or process is in place for producing desired deliverables (including frameworks for stakeholder involvement, data collection capability, etc.); (2) analytical tools required to produce desired trade-offs are in place; (3) some level of stakeholder agreement occurs. An operational definition of "completed" is that all three dimensions converge to support findings and recommendations with reasonable confidence. Green = Higher Probability of Completion for Update 2013; Yellow = Moderate Probability; and Red = Lower Probability.

Session 2  
Topic

Chapter 1 - Introduction	Chapter 2 – CA Water Today	Chapter 3 - Imperative to Invest (in Innovation and Infrastructure)	Chapter 4 State and Federal Companion Plans
<b>Plenary Finance Session 1</b> <i>Framework Background and Scope of IWM</i>  <b>Definition and Scope of Integrated Water Management; Finance Planning Framework</b>  This section will describe: (1) The definition and scope of integrated water management (IWM). (2) How many policymakers and stakeholders have expressed a need for an IWM finance planning effort. (3) How California is expected to face significant challenges surrounding IWM financing due to the near full allocation of existing bond funds, protracted recession, deferred investment, etc. (4) The intended applications of the finance planning framework.  <b>IMPORTANT MESSAGE</b> - Emphasis on the value of the storyboard to this and other future IWM finance efforts (as a useful framework for working through the layers of issues and complexities required to get to IWM funding and finance recommendations) <ul style="list-style-type: none"> <li>A detailed description of the Finance Plan storyboard.</li> <li>An explanation of the storyboard's development</li> <li>An illustration of how the finance planning framework reflects the storyboard.</li> </ul>	<b>Plenary Finance Session 2</b> <i>Follow the Money</i>  <b>Resource Management Funding History</b> This section will provide a description of historical federal, State, and local IWM investments as context for planning future State IWM investment. It will also include a variety of data and information to provide a full understanding of how current conditions have evolved to be (e.g. debt levels, funding sources, administrative constraints, etc.).  <b>State, Local and Federal Government IWM Spending Summary</b>  This subsection contains a generalized characterization of State IWM spending from fiscal years 2000/2001 through 2011/2012 using the categories developed in storyboard component 2 (e.g. innovation and infrastructure). To the extent possible, it will also include similar data for local and federal spending. Contextual messages will be articulated as necessary to help provide a full enough understanding to make informed decisions.	<b>Plenary Finance Session 4</b> <i>Consequences of little to no future investment</i>  <b>Cost of Limited or Forgone Investment</b>  This section will convey a sense of urgency to implement Update 2013 recommendations. It includes a description of the implications of very limited investment in IWM (e.g. that may not even begin to implement activities that are considered critical or high-priority). Implications or resulting conditions can be expressed in terms of environmental, economic, and social effects of deferred implementation; forgone opportunities or benefits; and other unfavorable consequences.	<b>Existing Finance Strategies</b>  This section will provide a narrative regarding the disintegrated, constraining and complex nature of current State IWM financing as observed while synthesizing and integrating companion plans.  It will also describe incidental water-related benefits occurring as a twofor from various programs where water management is not the primary objective (e.g. land management, pesticide research, etc.).
<b>Description and Clarification of the Role of State Government in IWM Plenary Finance Session 5</b>			
Qualitative Only			

# Update 2013 Finance Planning Framework

## General History – Defining Events, Trends and Drivers

### Defining Events, Trends and Drivers of Historical Resource Management Funding In California (1850 – Present)

1850 - 1920 Reclamation Period	1920 - 1950 Federal Period	1950 - 1970 Infrastructure Period	1970- 2000 Environmental/ Public Trust Period	2000 - Current Bond Period	Current - Forward Integration Period
<ul style="list-style-type: none"> <li>Construction of levees for transportation, agriculture and water supply occurred throughout this period in the Central Valley, Bay Area and, most notably, in the Sac/S.J. Delta.</li> <li>By 1871, 1,115 miles of levees were constructed in the Delta protecting 700,000 acres; mostly financed by land owners through reclamation districts.</li> <li>Taxpayers approved bond issues in 1917 and 1924 to build major dams. After two more destructive floods in the 1930s, the Army Corps of Engineers took a lead role in channelizing rivers.</li> <li>The federal Flood Control Act of 1917 funded about half the costs of California's flood control projects.</li> </ul>	<ul style="list-style-type: none"> <li>Federal agencies entered the field of water resource development in California in a large way in the financing and construction of projects for water conservation, irrigation, navigation, and flood control, and for the protection of wildlife. Both the U.S. Army Corps of Engineers and the Bureau of Reclamation outlined comprehensive proposals, including the Central Valley Project</li> <li>The Flood Control Act of 1928 put the U.S. Army Corps of Engineers firmly in charge of flood control projects in California and throughout the nation</li> <li>The Central Valley project was constructed during this period.</li> </ul>	<ul style="list-style-type: none"> <li>State Water Project constructed using revenue and general obligation bonds repaid by water contractors.</li> <li>Continued local residential and commercial water supply and wastewater development largely funded by local utility rates, revenue bonds, and fees.</li> <li>The National Flood Insurance Act of 1968.</li> <li>In 1973, State statute was changed to one of State-local cost sharing for flood damage prevention.</li> </ul>	<ul style="list-style-type: none"> <li>Several State and federal environmental laws enacted (Clean Water Act, Endangered Species Act, CA Endangered Species Act, CA Environmental Quality Act)</li> <li>California has allocated funds garnered through the federal Clean Water Act to make great strides in cleaning up its rivers, lakes, groundwater aquifers, and coastal waters.</li> <li>State has financed portions of Delta levee maintenance and emergency response and recovery.</li> <li>The Water Resources Development Act as enacted within this period.</li> </ul>	<ul style="list-style-type: none"> <li>2000 Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act (\$1.97 Bil.).</li> <li>2000 Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act (\$2.0 Bil.).</li> <li>2002 California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002 (\$2.6 billion).</li> <li>2002 Water Security, Clean Drinking Water, Coastal and Beach Protection Act (\$3.4 Bil.)</li> <li>2006 Disaster Preparedness and Flood Protection Bond (\$4.09 Bil.)</li> <li>2006 Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond act (\$5.39 Bil.)</li> </ul>	<ul style="list-style-type: none"> <li>Although the concept of integrated water management began emerging in the early 2000s, future planning and funding activities are expected to become increasingly integrated</li> </ul>

*DRAFT - Subject to revision*

Majority of water supply funding from local sources  
Majority of flood management funding from federal and State governments



# Integration Period - Innovations in Finance

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As Is	To Be
Financing ↓ Priorities	Priorities ↓ Financing

# **Update 2013 Finance Planning Framework History of Resource Management Funding**

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## **Estimated Federal, State & Local IWM Spending**

# **Update 2013 Finance Planning Framework History of Resource Management Funding**

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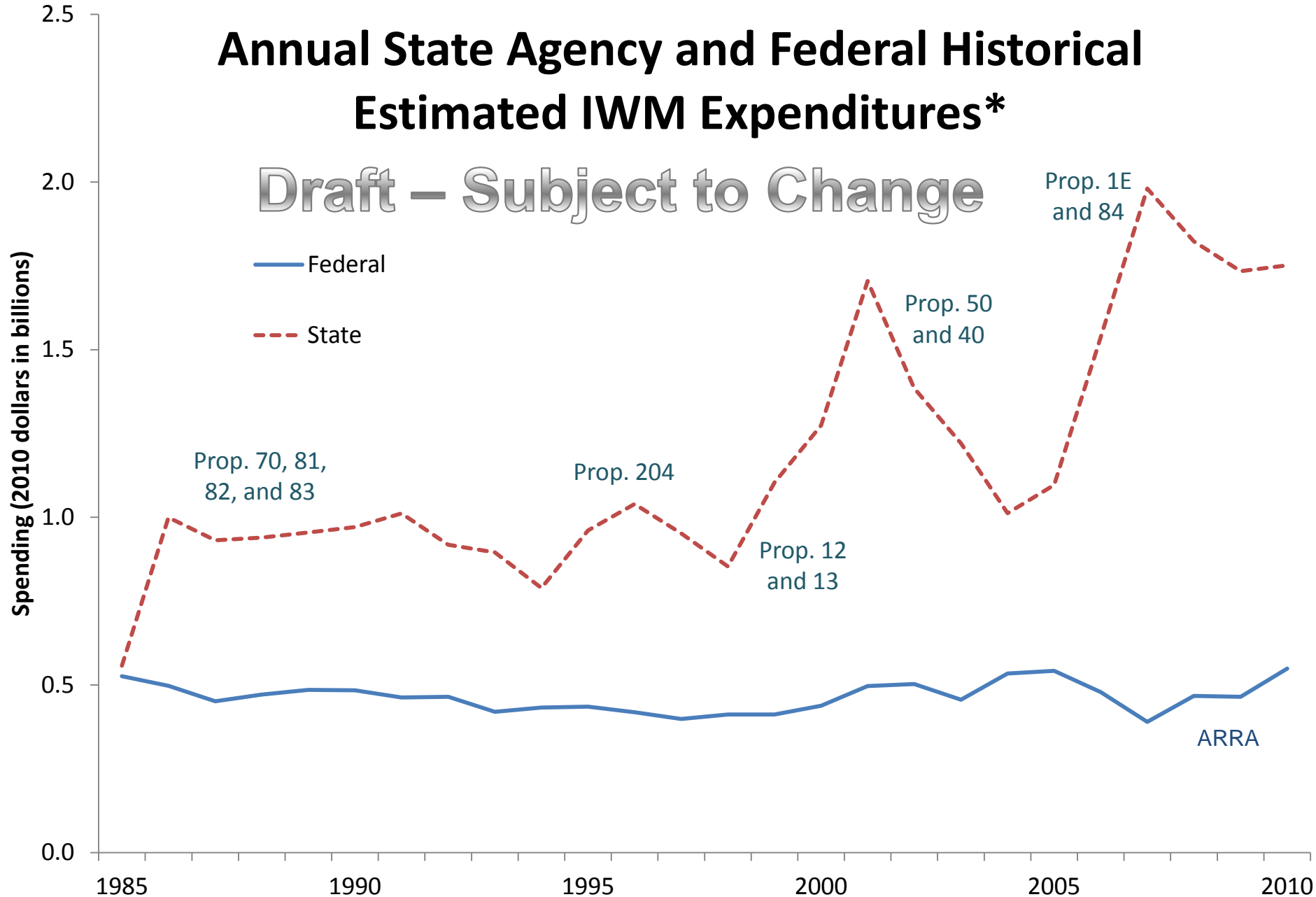
## **DISCLAIMERS:**

- (1) Data, Derived Premises and Contextual Messages are preliminary and do not represent proposed State government conclusions or policy**
- (2) Information is still very formative and is presented for stakeholder discussion regarding its utility for informing future decisions (It is not proposed content for Update 2013 - yet.)**



# Annual State Agency and Federal Historical Estimated IWM Expenditures\*

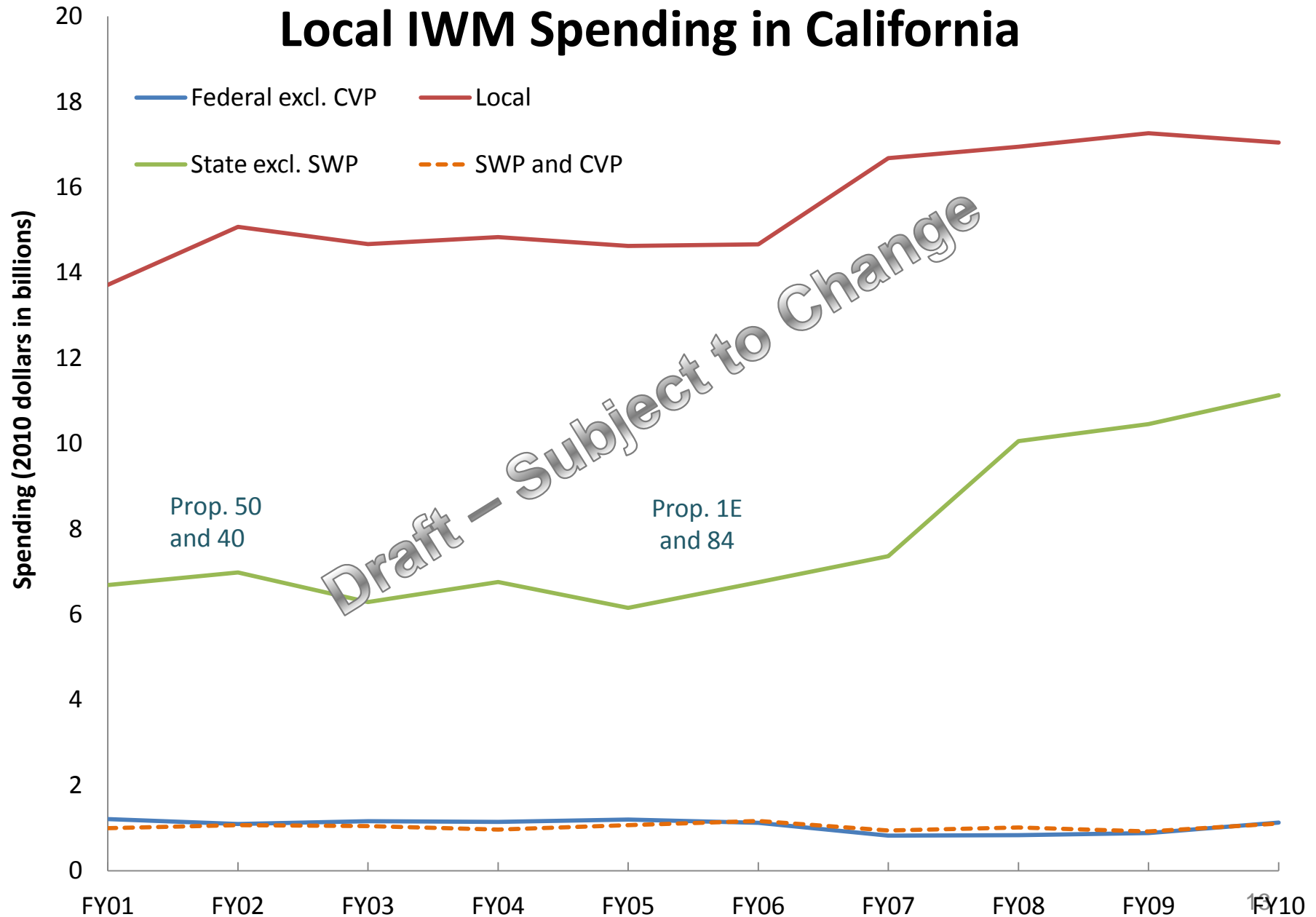
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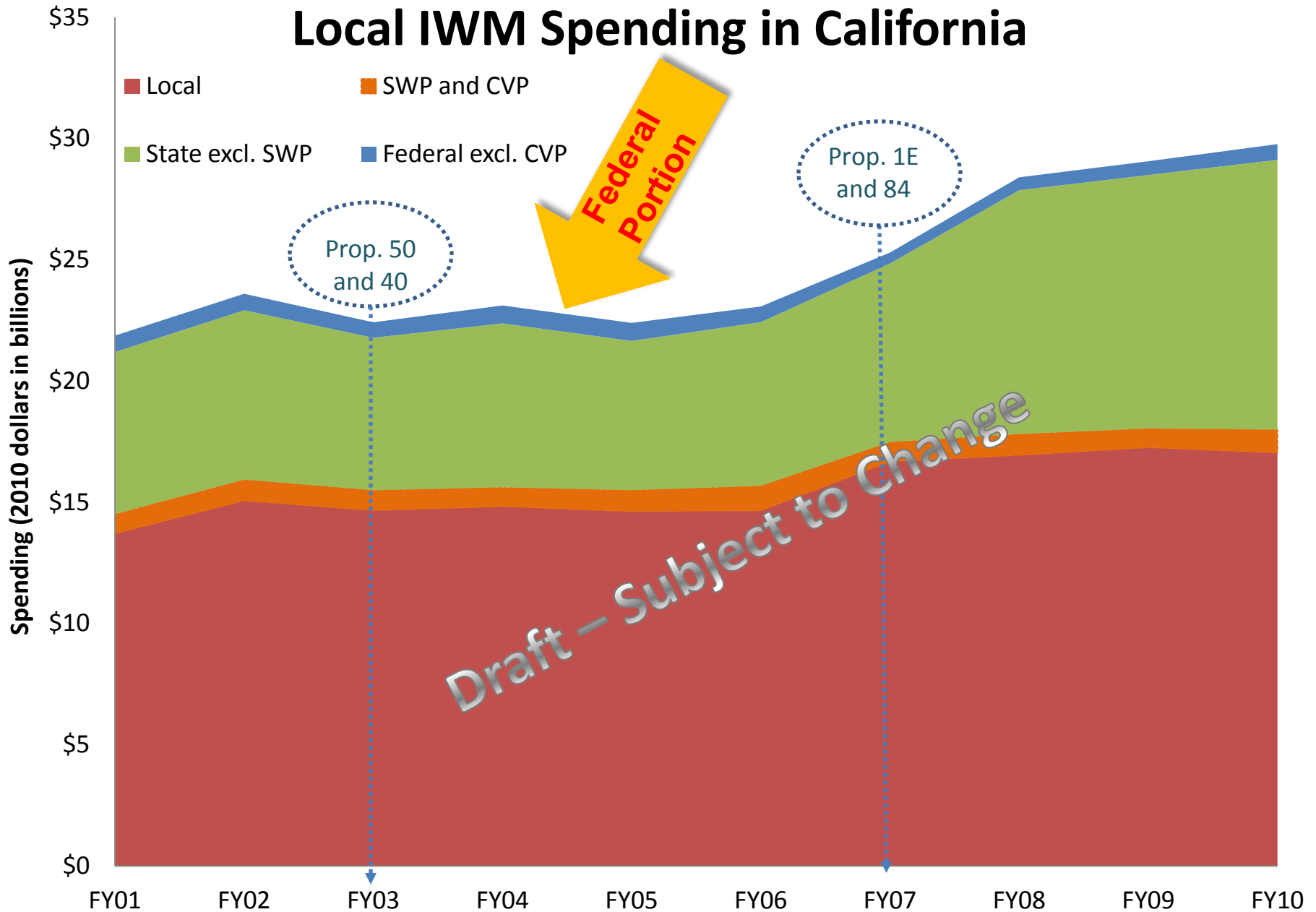
\* Federal includes USBR, USACE, and EPA California IWM expenditures only.

\* State includes a sub-set of total agencies and thus total IWM expenditures. See Notes.

# Estimated Annual Federal, State Agency, and Local IWM Spending in California

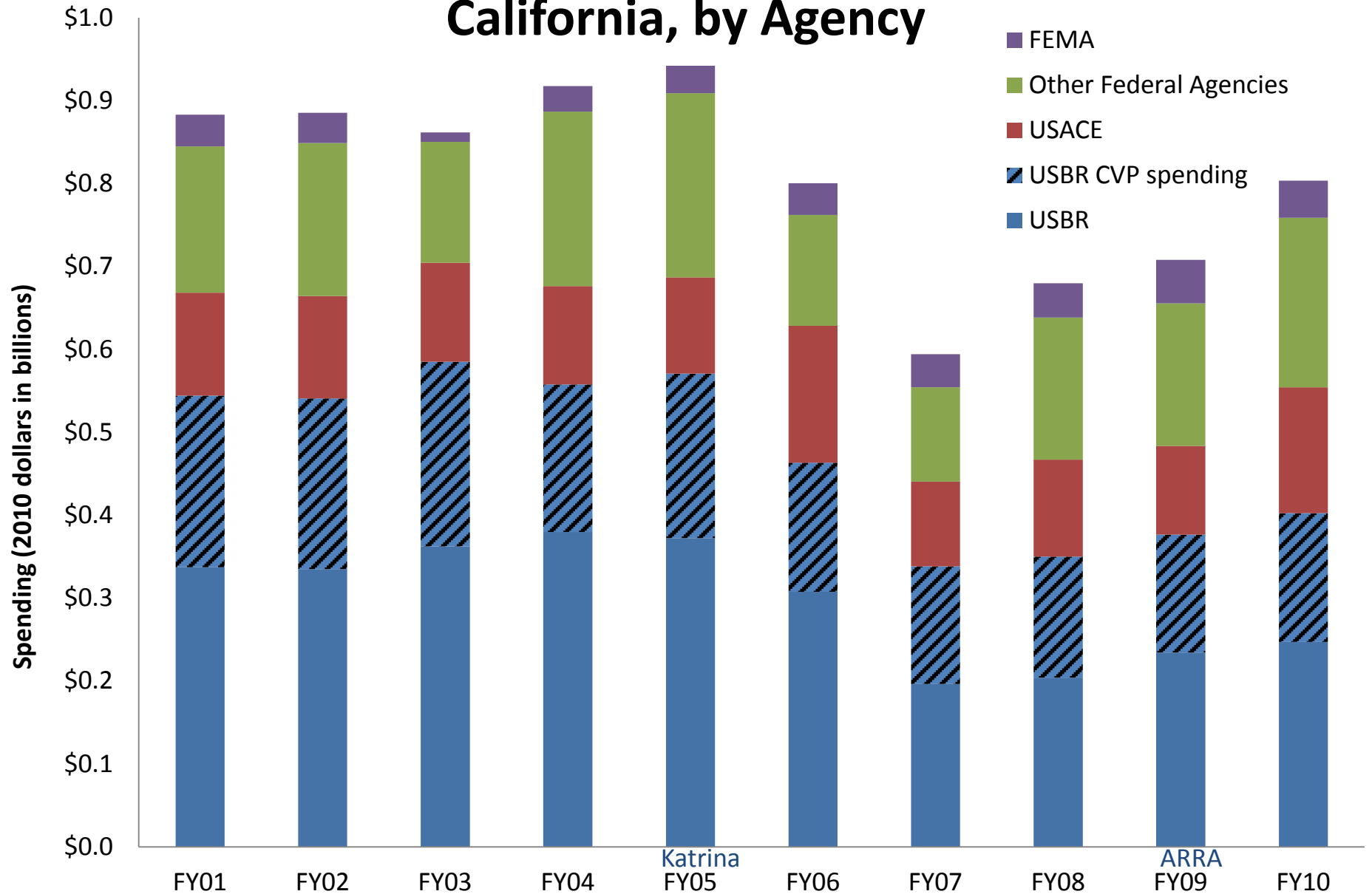


# Estimated Annual Federal, State Agency, and Local IWM Spending in California



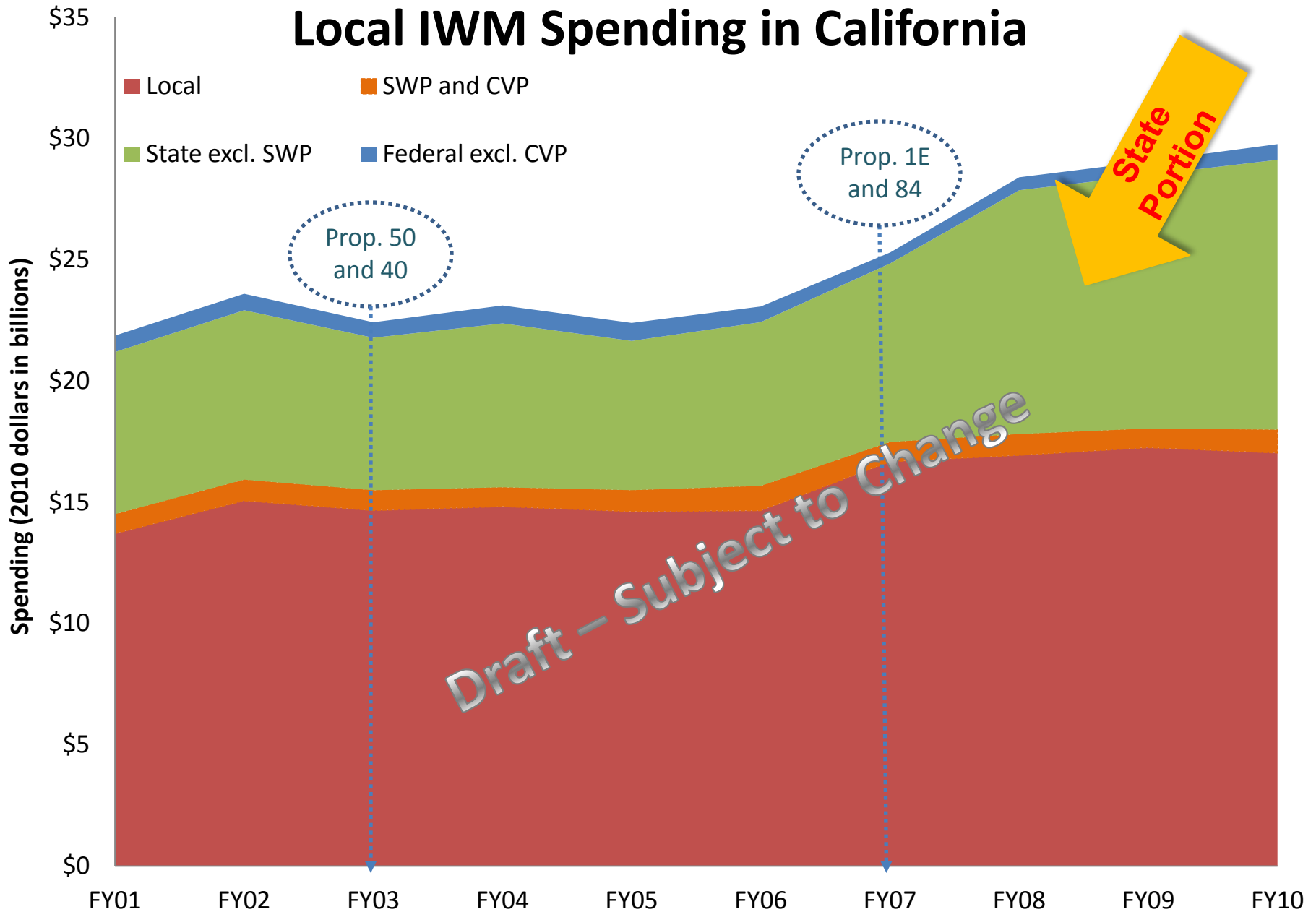


# Estimated Annual Federal IWM Spending in California, by Agency

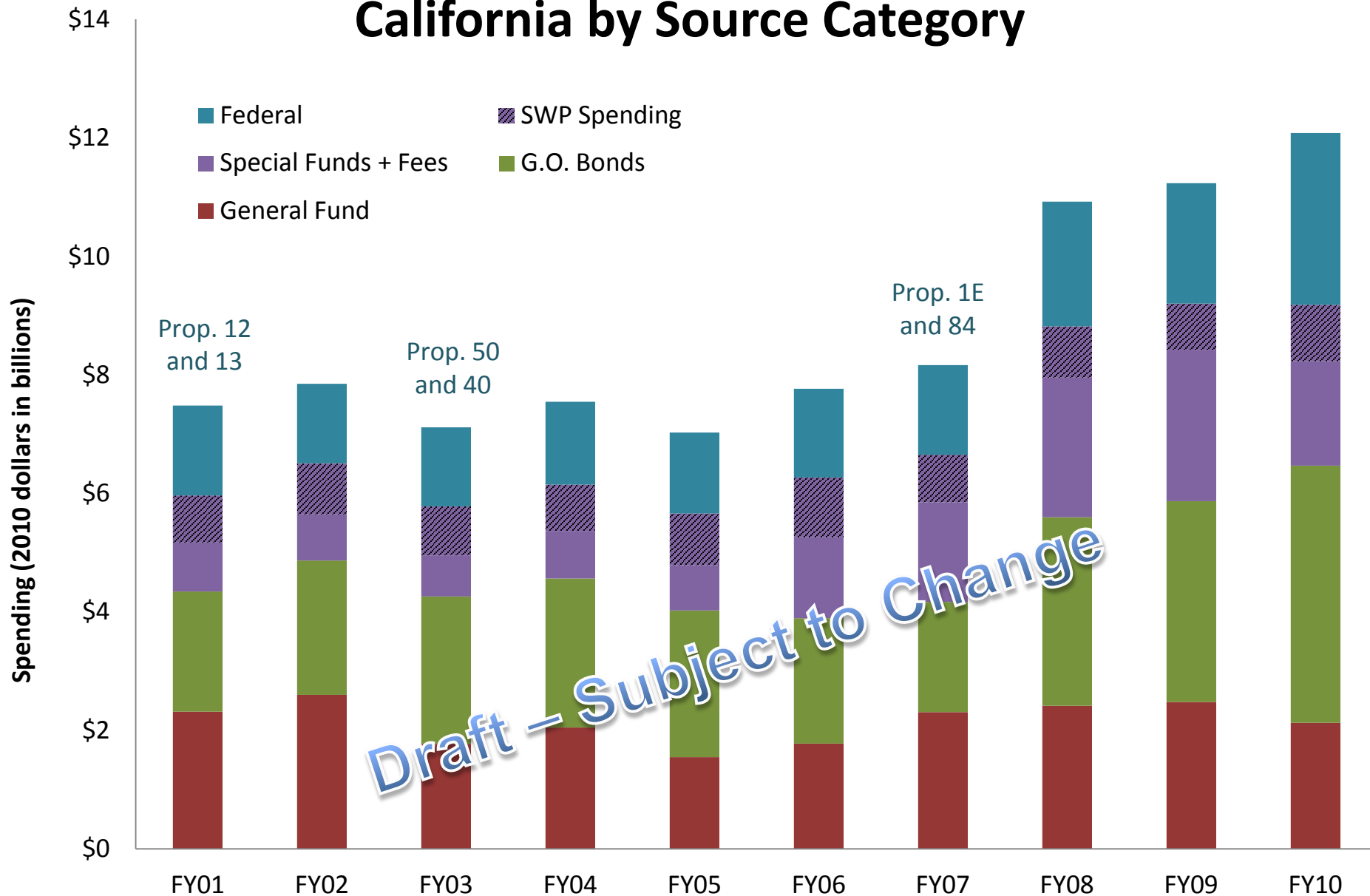


Note: "Other Federal Agencies" includes NOAA, EPA, Geological Survey, NRCS, and Fish and Wildlife Service. The majority of spending by these agencies is related to the CALFED Bay-Delta Program.

# Estimated Annual Federal, State Agency, and Local IWM Spending in California

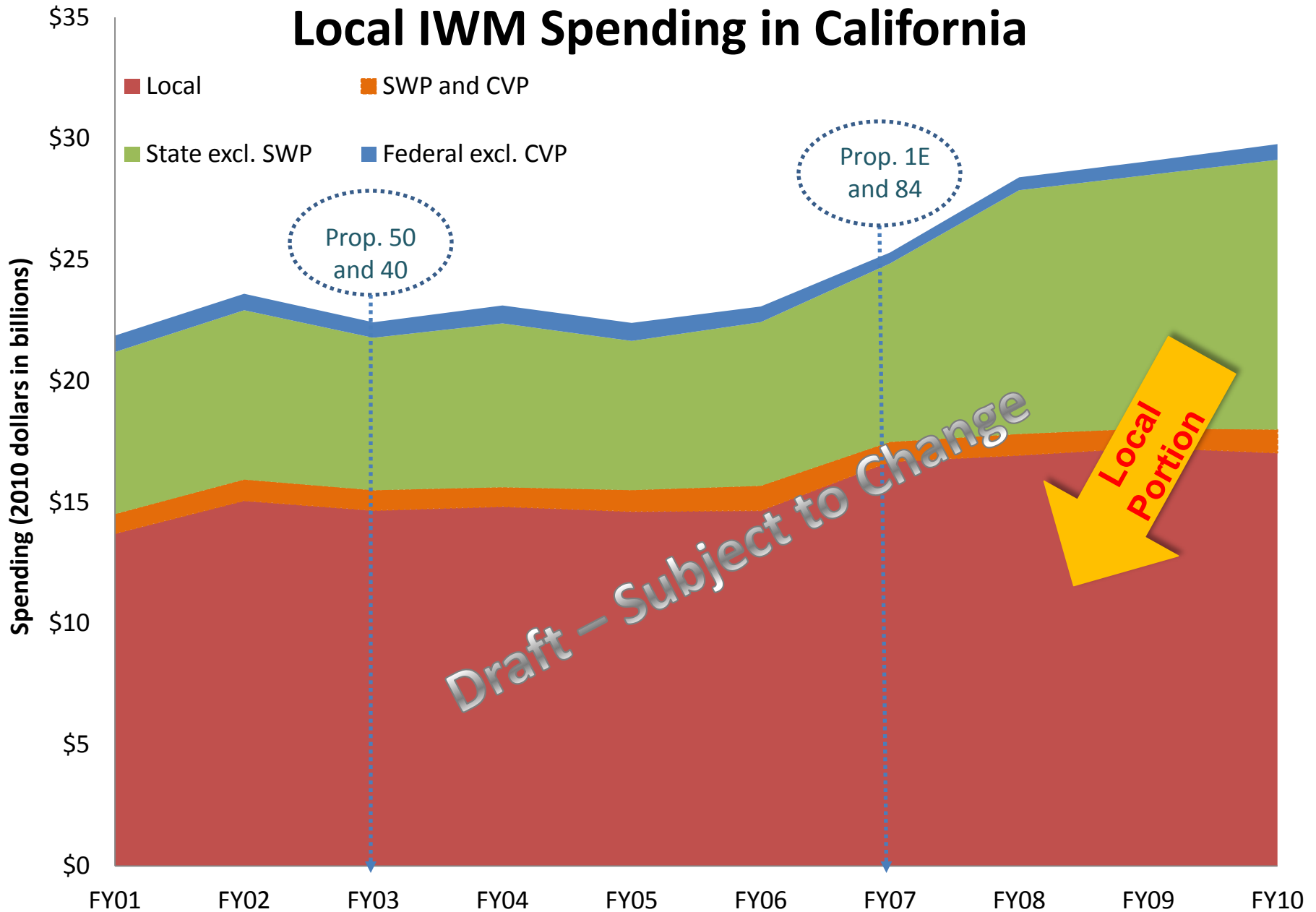


# Estimated Annual State Agency IWM Spending in California by Source Category

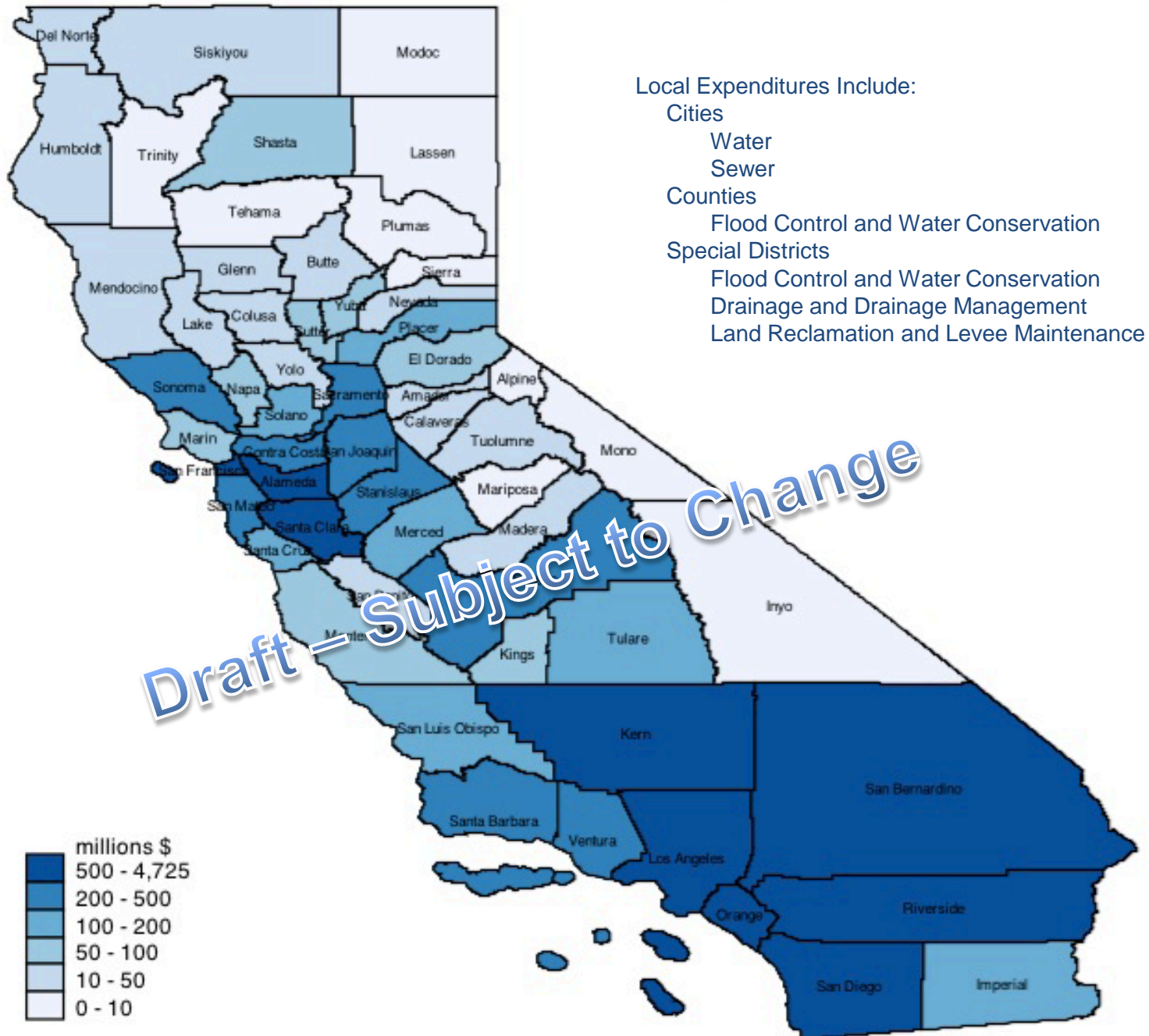




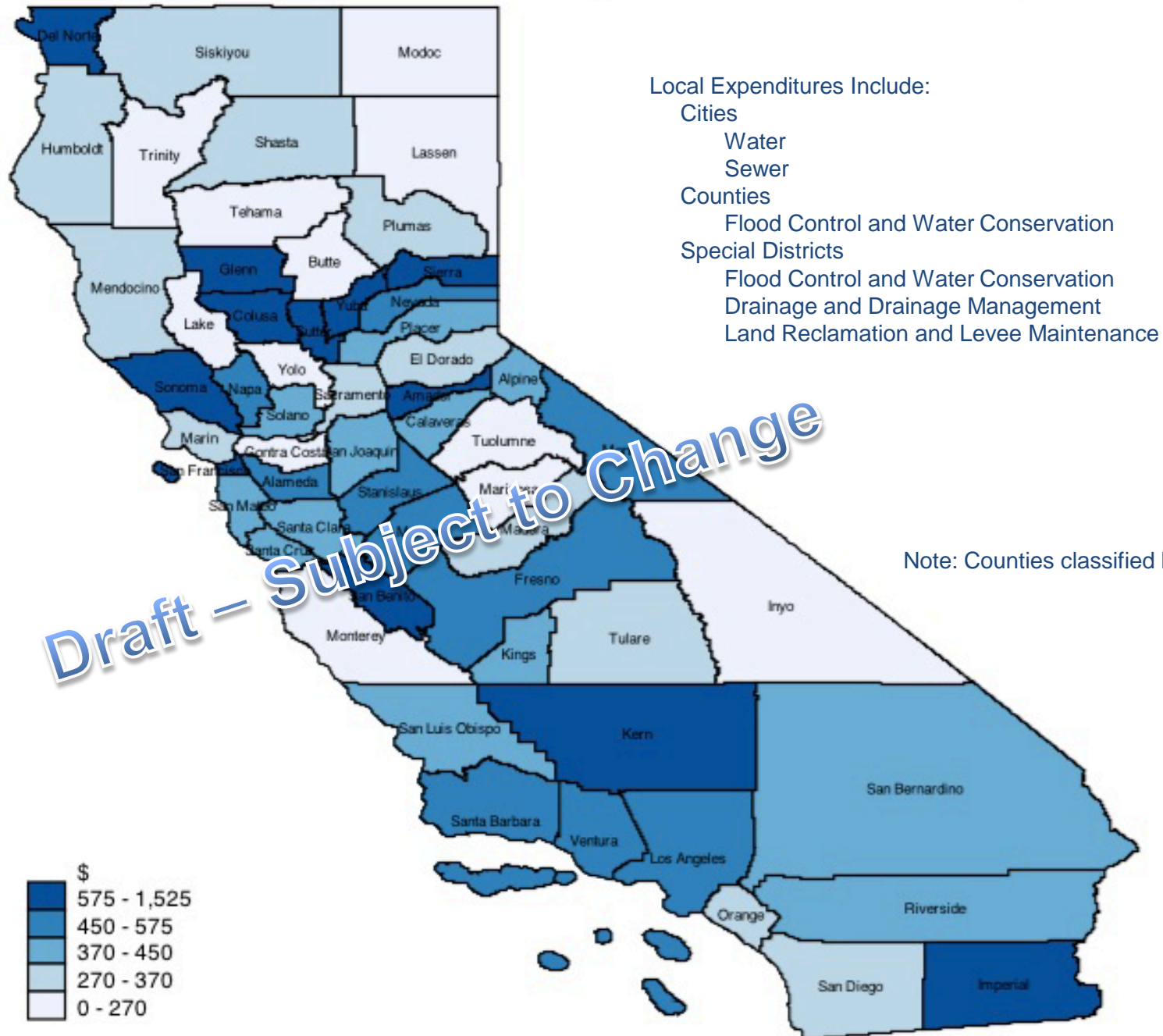
# Estimated Annual Federal, State Agency, and Local IWM Spending in California



# FY2010 Local IWM Expenditures



# FY 2010 Local IWM Expenditures per Capita





# History of Resource Management Funding

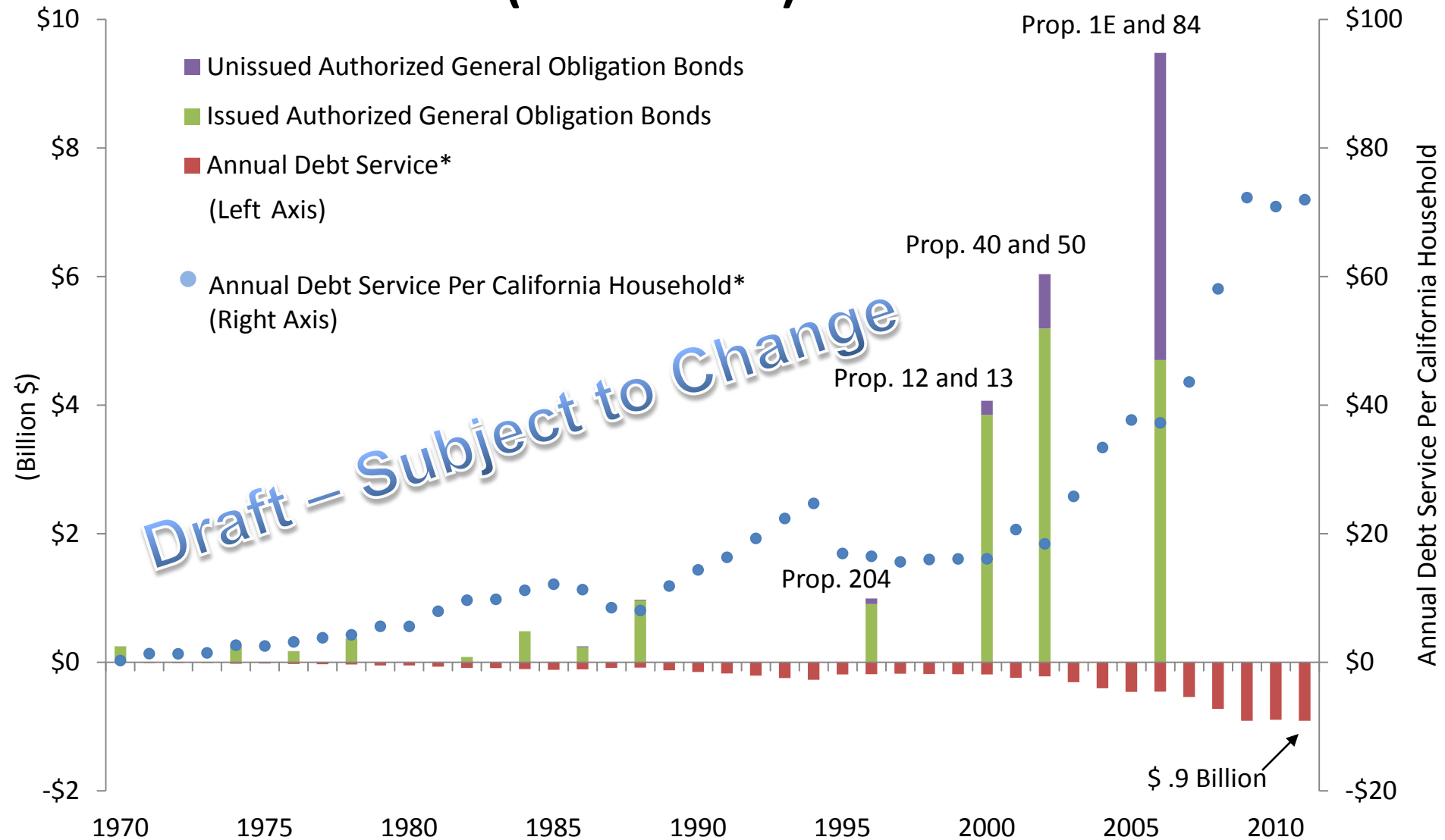
## Estimated Federal, State & Local IWM Spending

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### **Critical Context for Spending Data:**

- (1) Spending data does not capture cost of borrowing
- (2) There are essentially only two revenue sources, regardless of funding construct; taxes or fees
- (3) Must look at full picture of State services in order to contextualize IWM spending in a way that speaks to policy makers

# IWM State General Obligation Bond History (1970 -2012)

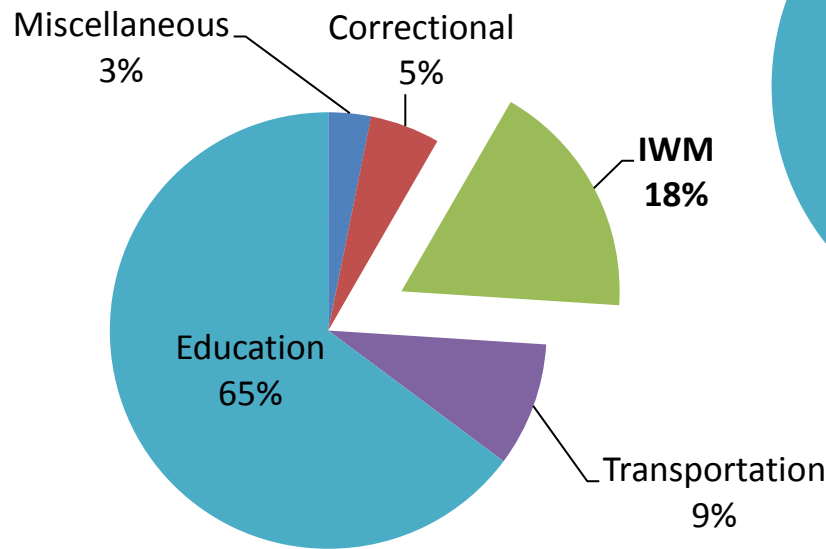


•Debt service is applicable to issued general obligation bonds only

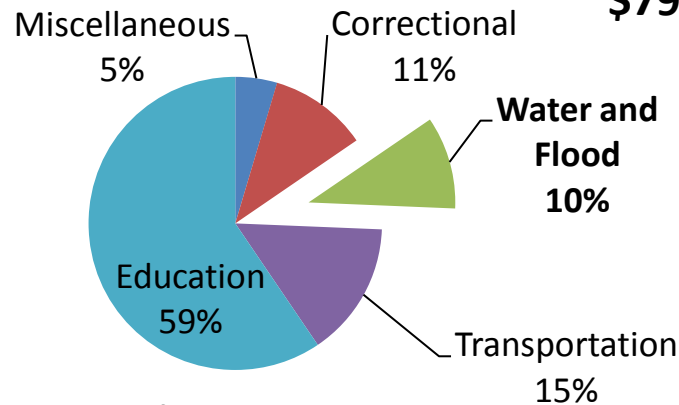
Source: California Department of Finance

# Total Authorized State General Obligation Bonds

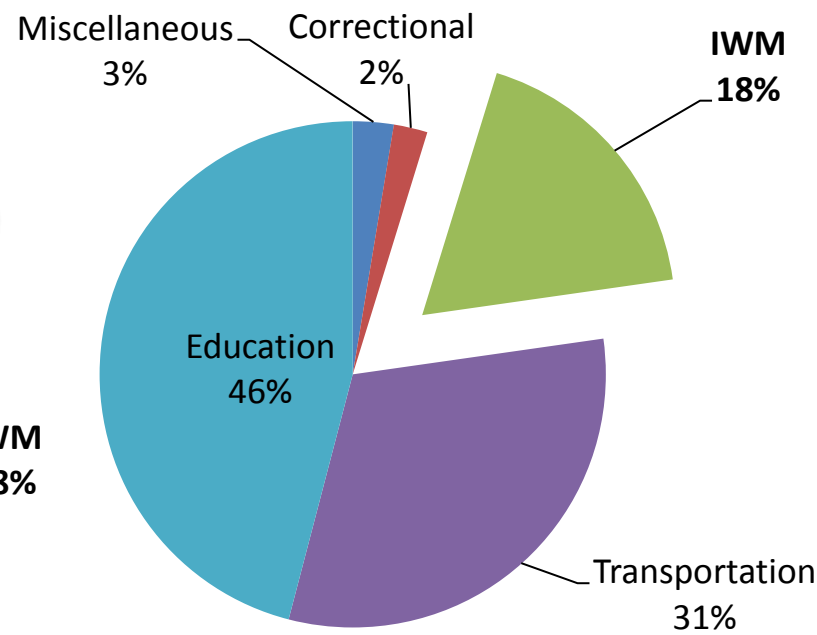
Draft – Subject to Change



\$79 Billion (2005)



\$ 38 Billion (1999)



\$128 Billion (2011)

Total Authorized G. O. Bonds (Billions \$)			
Category	1999	2005	2011
Miscellaneous	\$1.7	\$2.5	\$3.3
Correctional	\$4.1	\$4.1	\$2.8
IWM	\$3.8	\$14.0	\$22.9
Transportation	\$5.6	\$7.2	\$40.0
Education	\$22.4	\$51.1	\$58.6
Total	\$37.7	\$78.9	\$127.6
Population (millions)	33.4	36.0	37.4

Source: California Department of Finance

# Update 2013 Finance Planning Framework Derived and Contextual Premises

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1. Currently authorized G.O. bonds and federal funding comprised 2/3 of total IWM State spending in fiscal year 2011/2012.
2. Current G.O. bonds will be fully allocated by the year 2018
3. Federal investment is shrinking relative to State and local investment



# Update 2013 Finance Planning Framework Derived and Contextual Premises

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4. Very little of the total State IWM funding allows discretion or flexibility (e.g. Bond and legislative language designates funding purposes)
5. Water and flood bond annual debt service close to an all time high at \$75 per household
6. Total State annual bond debt service is close to an all time high at \$365 per household

# Update 2013 Finance Planning Framework Derived and Contextual Premises

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7. Local investment was, and remains, the primary source of funding for water supply
8. Federal investment has historically been the primary source of funding for flood management.

# Update 2013 Finance Planning Framework Derived and Contextual Premises

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9. There are two basic sources of funding: taxes and fees
10. For any given year, there were essentially two funding strategies: (1) cash on hand; and (2) borrowing
11. Water management is being integrated, but water management funding remains fragmented - limiting opportunities for further integration.



# History of Resource Management Funding

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## Questions for participants:

- (1) What other useful messages can be derived from this information?
- (2) What additional data or information would provide useful historical context?





## **Next Finance Session**

***Principles for Investment Priorities  
&  
Principles for Apportioning Costs***